

LE LABORATOIRE DU BACTÉRIOPHAGE founded by

~~XXXXXXXXXXXX~~ Professeur d'HERELLE

*Paris (157) le*

April 4, 1952

Mr. Dr. J. Lederberg  
Associate Professor of Genetics  
University of Wisconsin  
Madison 6, Wisconsin.

Dear Professor Lederberg:

I have received your kind letter dated March 20, 1952, which was transmitted to me by Pasteur Institute of Paris, and I shall be pleased to maintain the good relations with you.

I am happy to announce you, that on April 2nd I sent you one little post-parcel containing:

- 3 bacterial strains of Salmonella typhi (our n°372- 377- 383 ).
- 4 ampules with our Phage  $\phi$  VIII-113 freshly propagated with strain 377 (2 ampules designed "Phage  $\phi$  VIII-113 Sertie-Boulgakov 1936"), and with strain 372 (2 ampules designed "Phage  $\phi$  VIII-113 -passage strain 372")

Phage  $\phi$  VIII-113.

The principal characters are described in our paper of 1936 enclosed and designed with red (A) ; on the table attached on this reprint the phage is also red underlined.

Composition of broth :

Phage  $\phi$  VIII-113 requires no special chemical composition of culture medium. Ordinary peptone broth :

- beef extract	5 gr
- peptone-Bacto	10 -
- sodium chloride	2, gr5
- water	1.000 gr

is advisable for the work.

We employed this simple formula:

- beef extract	3 gr
- dried yeast extract	3 -
- peptone powder	10 -
- sodium chloride	0 - ( no salt )
- water	1.000 -

pH = 7,6 - 7,8

For the hard medium add 12 gr. of agar-agar.

Bacterial strains.

Strain n°377 is Salmonella typhi var. "H.90I" of Felix, it is very convenient for the propagation of Phage.

Strain n°372 is Salmonella typhi var. "Rough" of Sertie-Boulgakov, it shows clearly immobility action of Phage after six hours' incubation.

Strain n°383 is Salmonella typhi "6.396 V $\beta$ " of Felix, it gives a higher titer of Phage-corpules as others two overnamed strains.

*Received 4/24/52.*

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Propagation of Phage  $\phi$  VIII-113.

Prepare 2 test tubes containing each 10 ml of fresh broth-suspensions of Salmonellae ( about 200 millions of bacilli per 1 ml). Take strains 377 or 383.

Test tube n° 1 is considered as control (normal broth culture of Salmonella ).

Test tube n°2 is added with 0,1 ml of Phage (from original ampules).

Incubate at 36° - 37° C. for 24 hours.

After this time the test tube n°2, containing Phage-culture, is never entirely clear ( there is general rule for the purified races of phages).

Filter this broth-culture through Chamberland Filter Candle L 5 or medium-sized Pyrex sintered glass filter.

Dispense in small ampules or bottles.

Test of sterility.

There is the original filtrate containing the Phage  $\phi$  VIII-113.

Immobility action of Phage.

After 3 - 6 - 9 - 12 - 24 hours'incubation the hanging drop preparations may be made from both test tubes n° 1 and 2.

Immobility action of Phage is well pronounced after six hours'incubation with strains 372 and 383. This time so as intensity of action (i.e. percentage of non-motile and motile bacilli ) may be different with other Salmonella strains.

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Do not hesitate to let me know if the cultures fail to reach you in satisfactory condition.

Hoping that my consignment will give you satisfaction I shall be very happy to know the results.

I enclose for you many copies of reprints of phage work from our laboratory.

Sincerely yours

*Nicholas A. Boulgakov*

Nicholas A. BOULGAKOV M.D.  
Bacteriologiste in charge.